

Exhibit 61

Diabetes has become one of America's most expensive diseases

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Health & Medicine

By Claudia Buck

With an estimated 30 million Americans struggling with diabetes, the disease is one of the nation's most entrenched chronic conditions. It's also one of the most expensive.

Consider these facts:

- In California, roughly 55 percent of adults either have diagnosed diabetes or blood-sugar levels that put them at high risk of developing the disease. That includes roughly 1 in every 3 adults ages 18 to 39 – a finding researchers call alarming.
- In terms of personal health care spending, diabetes tops the nation's list of 155 chronic conditions, hitting \$101.4 billion in 2013. According to the American Diabetes Association, average medical expenditures for people with diabetes are an estimated 2.3 times higher than for those without it.
- The cost of insulin alone has spiked by triple-digit percentages in the past 20 years.

"It's horrible for patients," said N. Chesney Hoagland-Fuchs, a registered nurse and chairwoman of the Diabetes Coalition of California. She said prices for insulin medications began a slow climb after the recession and started "shooting up" around 2013.

Over the past 20 years, the price of human insulin produced by two major manufacturers – Eli Lilly and Novo Nordisk – rose 450 percent, after accounting for inflation, according to a 2016 Washington Post analysis of data from Michigan-based Truven Health Analytics. A single 10-milliliter vial of Eli Lilly's Humalog insulin – less than a month's supply for many adults – was listed at \$254.80 last year, compared with \$20.82 in 1996, a Truven Health representative said.

Insulin is only one sliver of the cost of living with Type 1 and Type 2 diabetes. Depending on their treatment regimen, diabetics often spend hundreds of dollars annually on medications, syringes, pumps, needles, blood-sugar sensors and monitors, even alcohol swabs for finger stick testing.

It all adds up. On average, those with diagnosed diabetes have annual medical expenses of \$13,700, more than half of which is directly attributed to their disease, according to the American Diabetes Association.

Grace Brito, just 7 years old, has been coping with Type 1 diabetes for almost half of her young life. Because her body cannot produce insulin, Grace gets six daily shots, tests her blood sugar with finger pricks six or more times a day and wears a costly monitor that checks her glucose levels around the clock, alerting her mother whenever her blood sugar spikes or dips. All told, her Sacramento parents spend nearly \$1,600 a year on medical supplies to keep her diabetes in check, not including diabetes-friendly snacks and juice drinks.

If it weren't for health insurance, said her mother, Nicole, the family's costs could be triple that amount and completely unaffordable. For instance, Grace's glucose-monitoring system – a three-part sensor, transmitter and monitor recommended by her doctor – would have cost nearly \$4,000 retail, but was covered by the family's Kaiser health plan.

"I renew every time a prescription comes due. If we were having to pay more, we'd be scraping by," said Brito, a mother of three whose husband works in sales for Verizon. "You never know if your insurance somehow lapses. Or you have nothing on hand to help you out. I worry about that."

Last March, a UCLA Center for Health Policy Research study estimated that more than half of all Californian adults – 15.5 million people – either have diagnosed diabetes or are prediabetic, in which blood sugar levels are higher than normal but not yet considered full-blown diabetes.

Nationally, diabetes diagnoses only recently have slowed after steadily rising for about two decades. In 2012, nearly 30 million U.S. adults had diabetes, according to the federal Centers for Disease Control and Prevention. Another 86 million Americans have prediabetes, according to the CDC.

If current trends continue, the CDC estimates, as many as 1 in every 3 Americans could have diabetes by 2050.

The most common form of diabetes is Type 2, which typically occurs in adults and is caused primarily by age, obesity, physical inactivity or family history. It can be controlled with diet, exercise and medications to lower blood-glucose levels, but often progresses to requiring daily insulin injections.

Type 1 diabetes, often diagnosed in children and teens, occurs when the body's pancreas stops producing insulin. It's called insulin-dependent diabetes because patients cannot survive without the hormone, either by injection or a pump.

The personal cost of managing the disease is daunting. Treating diabetes soaked up \$101.4 billion in personal spending in 2013, primarily for pharmaceuticals, according to a study last year by the University of Washington-based Institute for Health Metrics and Evaluation. Diabetes topped the institute's list of 155 conditions tracked over 18 years, including cancers and heart disease.

In California alone, the cost of treating diabetes was estimated at more than \$27 billion in 2012, according to the American Diabetes Association.

Diabetes drugs are a significant part of the national debate over out-of-control prescription drug costs.

One cause for increasing prices is growing demand as more people are diagnosed. Even though three pharmaceutical companies – Eli Lilly, Novo Nordisk and Sanofi – manufacture insulin products, competition has not lowered the annual list price of these lifesaving drugs. Pharmaceutical companies regularly tweak their insulin products, extending their patents and preventing generics from entering the market.

Another factor: Pharmacy benefit managers, who negotiate with drug companies on behalf of health plans, set prices that aren't disclosed. So what people pay depends heavily on how well their insurance provider negotiated.

"A lot of this happens behind closed doors, so it's very hard to distinguish what's really being paid," said Jeffrey Hoch, associate director of the UC Davis Center for Healthcare Policy and Research. "The price is related to what insurance you have, and the results are different whether you're on Medicaid, Medicare or are self-paid or on private insurance."

To cope with rising costs, some patients cut corners. Some use their doctors' free insulin samples. Others stretch out their dosages, cutting them in half or skipping every other day. Some reuse insulin needles.

In worst-case scenarios, patients stop using insulin, which can cause severe spikes or drops in blood sugar, said Hoagland-Fuchs of the statewide diabetes coalition. If left untreated, the disease can lead to serious complications including stroke, kidney disease, blindness and lower-limb amputations.

Some patients have gone back to older types of insulin, known as NPH, which sell for as little as \$25 a vial at Walmart. While affordable, these older versions are slower-acting than the newer versions.

"The danger is that (NPH) kicks in three hours after you take it," said Hoagland-Fuchs, creating gaps in which patients could experience dangerously high blood-sugar levels. "It's a tool we shouldn't be using."

Higher costs appear to have created an online marketplace for some diabetes products. A recent Sacramento Craigslist ad, for instance, offered "CASH ON THE SPOT FOR DIABETES TEST STRIPS" while promising "pickup within 30 minutes."

Even those with an employer's insurance find the costs daunting.

Keith Wick, a 31-year-old information technology specialist, was diagnosed with Type 1 diabetes as a teenager. Two years ago, the Sacramento resident was paying about \$60 for a 90-day supply of Lantus and Humalog, which covered about five insulin injections a day. Today, even with Kaiser Permanente health insurance, that same dosage costs about \$210, roughly a 250 percent increase.

“Diabetes is the cash cow of the pharmaceutical industry,” said Wick, who works for the state Department of General Services. “You have to have (insulin). You have to buy it or you risk losing your life.”

Wick and his wife are squirreling away savings to pay for newer technology to treat his diabetes. Wick wants to buy a continuous glucose-monitoring system, which would cost about \$6,000 for an insulin pump and \$1,000 for the blood-sugar sensor and monitor. His health plan will cover about 80 percent of the hardware cost, but that doesn’t include the disposable insulin cartridges and the sensor’s batteries, which must be replaced every three months. And he’d still need to test his blood-sugar levels at every meal with finger sticks.

Last year, to cover the anticipated expense, Wick and his wife added money to their health plan’s flexible spending account. “It’s expensive. It’s a lot out of your pocket every year,” said Wick, who’s had Type 1 diabetes for about 18 years.

For Medi-Cal patients, the state covers the full cost of diabetes medications, but price spikes have led to constraints on which medications Medi-Cal doctors can prescribe.

Dr. Gilbert Simon, medical director of Sacramento Family Medical Clinics, which treats about 30,000 Medi-Cal patients in Sacramento County, said doctors are required to start with cheaper, non-insulin solutions that are often not as effective at reducing blood-sugar levels.

“It prolongs the process of getting to the most effective medications,” he said. “The real cost to patients is in delayed treatment.”

The combination of rising diabetes diagnoses and spiraling costs is a “terrifying” prospect for Harold Goldstein, executive director of Public Health Advocates, a Davis-based nonprofit that commissioned the 2016 UCLA prediabetes study.

Calling it a vicious cycle, Goldstein said higher costs mean lower-income people often don’t have the financial resources to manage their disease, compared with those who can afford better medications and monitoring systems. As a result, they often land in hospitals with expensive complications, which only adds to California’s overall medical costs.

“If we want to get health care costs under control,” Goldstein said, “the single most (important) thing we have to do is get diabetes costs under control and prevent diabetes from happening in the first place.”

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